Instructions – Parts List

Texture Airless Spray Gun

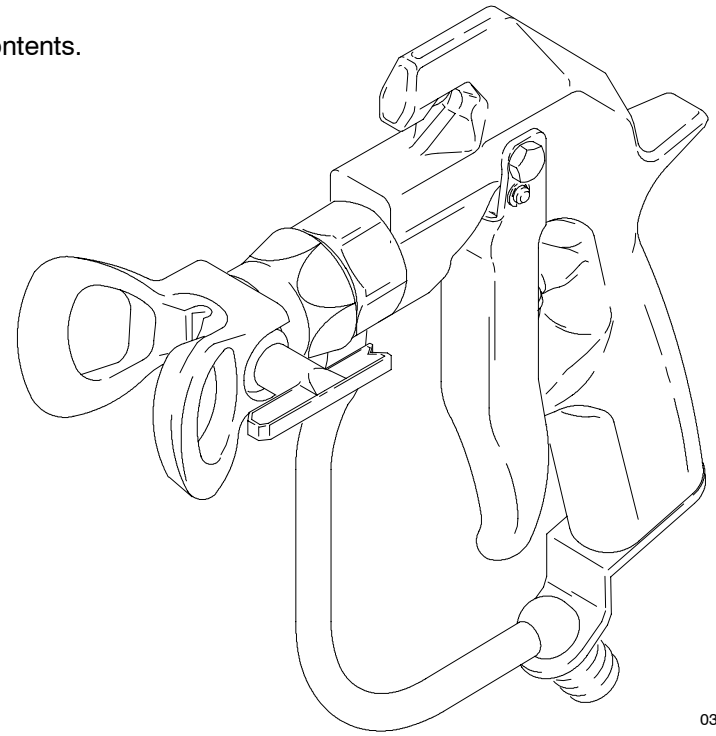
308491S

27.6 MPa (276 bar, 4000 psi) Maximum Working Pressure

Part No. 241705, Series B
Includes a RAC® Tip Guard and LTX531 Switch Tip®

Part No. 289605 (Europe Only), Series B
Includes a RAC® Tip Guard and HDA531 Switch Tip®

Important Safety Instructions
Read all warnings and instructions in this manual.
Save these instructions.
See page 2 for Table of Contents.



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Symbols

Warning Symbol

⚠ WARNING

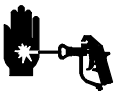
This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Caution Symbol

⚠ CAUTION

This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the corresponding instructions.

⚠ WARNING



SKIN INJECTION HAZARD

Spray from the gun, leaks or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Fluid splashed in the eyes or on the skin can also cause serious injury.

- Fluid injected into the skin may look like just a cut, but it is a serious injury. **Get immediate surgical treatment.**
- Do not point the spray gun at anyone or any part of the body.
- Do not put hand or fingers over the spray tip.
- Do not stop or deflect fluid leaks with your hand, body, glove or rag.
- Do not “blow back” fluid; this is not an air spray system.
- Always have the tip guard and the trigger guard on the spray gun when spraying.
- Check the gun diffuser operation weekly. Refer to the gun manual.
- Be sure the gun trigger safety operates before spraying the gun.
- Lock the gun trigger safety when you stop spraying.
- Follow the **Pressure Relief Procedure** on page 5 if the spray tip clogs and before cleaning, checking or servicing the equipment.
- Tighten all fluid connections before each use.
- Check the hoses, tubes and couplings daily. Replace worn or damaged parts immediately. Permanently coupled hoses cannot be repaired.
- Handle and route hoses and tubes carefully. Keep hoses and tubes away from moving parts and hot surfaces. Do not kink or over bend the hoses or use the hoses to pull equipment. Do not expose Graco hoses to temperatures above 180°F (82°C) or below -40°F (-40°C).

FIRE AND EXPLOSION HAZARD

Improper grounding, poor air ventilation, open flames or sparks can cause a hazardous condition and result in a fire or explosion and serious injury.

- Ground all equipment in the work area. See **Ground the System** on page 5.
- If there is any static sparking while using the equipment, **stop spraying immediately**. Identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable vapors from solvent or the fluid being sprayed.
- Do not smoke in the spray area.
- Extinguish all open flames or pilot lights in the spray area.
- Do not turn on or off any light switch in the spray area.
- Electrically disconnect all equipment in the spray area.
- Keep the spray area free of debris, including solvent, rags and gasoline.
- Do not operate a gasoline engine in the spray area.
- Keep a fire extinguisher in the work area.

⚠ WARNING

INSTRUCTIONS

EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture, malfunction or start unexpectedly and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are in doubt about this, call your Graco distributor.
- Do not alter or modify this equipment.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated system component. Refer to the **Technical Data** on page 15 for the maximum working pressure of this equipment.
- Do not move or lift pressurized equipment.
- Use fluids or solvents which are compatible with equipment wetted parts. Refer to the **Technical Data** section on page 15 and all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Do not use 1,1,1–trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use could result in a chemical reaction, with the possibility of explosion.
- Fluid hoses must have spring guards on both ends to protect them from rupture caused by kinks or bends at or close to the couplings.
- Comply with all applicable local, state and national fire, electrical and other safety regulations.

TOXIC FLUID HAZARD

Improper handling of hazardous fluids or inhaling toxic fumes can cause extremely serious injury, even death, due to splashing in the eyes, ingestion, or bodily contamination.

- Know the specific hazards of the fluid you are using.
- Store hazardous fluid in an approved container. Dispose hazardous fluid according to all local, state and national guidelines.
- Wear appropriate clothing, gloves, eyewear and respirator.

RECOIL HAZARD

Due to the high pressure fluid emitted, a strong recoil action may occur when you trigger this gun. If you are unprepared, your hand could be forced back toward your body or you could lose your balance and fall, resulting in serious injury.

Installation/Operation

System Requirements

⚠ WARNING

Keep the wallet-sized warning card provided with this gun with the operator at all times. The card contains important treatment information should an injection injury occur. Additional cards are available at no charge from Graco Inc.

1. The pressure drain valve assists in relieving fluid pressure in the displacement pump, hose and gun; triggering the gun to relieve pressure may not be sufficient.

2. Strain the fluid you are spraying if it contains particles which could clog the spray tip.

Ground the System

⚠ WARNING

To reduce the risk of static sparking, ground the pump and all other equipment used or located in the spray area. Check your local electrical code for detailed grounding instructions for your area and type of equipment. Also follow the grounding instructions provided in your pump or sprayer manual. The gun obtains grounding through connection to a properly grounded fluid hose and pump or sprayer. Also read **FIRE OR EXPLOSION HAZARD** on page 3.

How to Use the Gun Trigger Safety

1. To lock the gun trigger safety, turn the safety to a right angle with the gun body. See Fig. 1.

2. To unlock the gun trigger safety, push the safety out and turn it parallel with the gun body. See Fig. 1.

Pressure Relief Procedure

⚠ WARNING

To reduce the risk of serious injury, including fluid injection, splashing fluid or solvent in the eyes or on the skin, follow this procedure when you are instructed to relieve pressure, when you stop spraying, shut off the pump, check or service any system equipment, or install, clean or change spray tips.

1. Lock the gun trigger safety.

2. Shut off the power to the pump.

3. Unlock the gun trigger safety.

4. Hold a metal part of the gun firmly to a grounded metal pail. Trigger the gun to relieve pressure.

5. Lock the gun trigger safety.

6. Open the drain valve, having a container ready to catch the drainage. Observe the pressure gauge. The gauge reads 0 psi/bar when fully drained. Leave the drain valve open until you are ready to spray again.

If you suspect that the spray tip or hose is completely clogged or that pressure has not been fully relieved, very slowly loosen the tip guard retaining nut or hose end coupling and relieve pressure gradually. Clean the tip or hose obstruction.

1 Gun trigger safety shown locked

2 Gun trigger safety shown unlocked

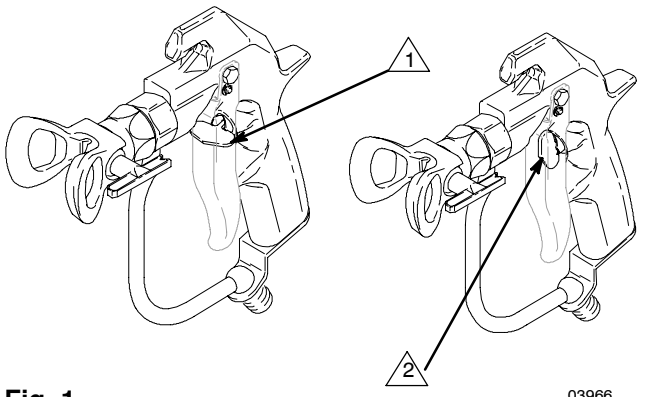


Fig. 1

Installation/Operation

How to Operate the Gun

⚠ WARNING

To reduce the risk of component rupture, and serious injury, including fluid injection, do not exceed the gun's **4000 psi (276 bar, 27.6 MPa) Maximum Working Pressure** or the maximum working pressure of lowest rated component in the system.

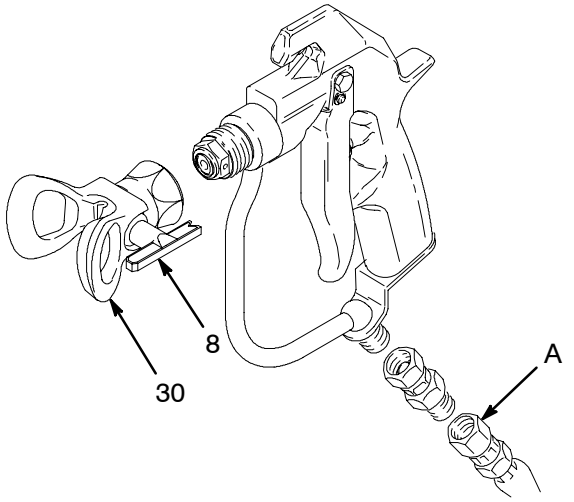


Fig. 2

1. Connect an electrically conductive fluid hose (A) to the gun inlet. See Fig. 2.

2. With no tip installed, start the pump. Flush the pump according to the instructions supplied with it. Use the lowest pressure possible. Prime the system with the material.

3. Relieve pressure.

4. Install the SwitchTip (8) and tip guard (30). Follow the i nstructions in the manual, supplied. See Fig. 2.

5. Start the pump. Trigger the gun onto test paper. Adjust the fluid pressure until the spray is completely atomized. Use the lowest pressure necessary to get the desired results. Higher pressure may not improve the spray pattern and will cause premature tip and pump wear.

6. If adjusting the pressure does not give a good spray pattern, relieve pressure and then try another tip size.

7. Use a full-open, full-close trigger action. Hold the gun about 14 in. (350 mm) from and at right angles to the work surface. Don't swing the gun in an arc. Practice to find the best length and speed of stroke.

How to Adjust the Spray Pattern

1. To adjust the spray pattern direction, relieve pressure. Loosen the tip guard retaining nut (B). Turn the tip guard/tip groove horizontally (C) for a horizontal pattern and vertically (A) for a vertical pattern. Tighten the nut. See Fig. 3.

2. The spray tip orifice and spray angle determines the coverage and size of pattern. When more coverage is needed, use a larger spray tip rather than increasing fluid pressure.

⚠ CAUTION

Openings in the tip guard reduce paint buildup on the guard while spraying. Damage to the sharp edges of the openings causes paint to collect at that area. Never hang the gun by the tip guard.

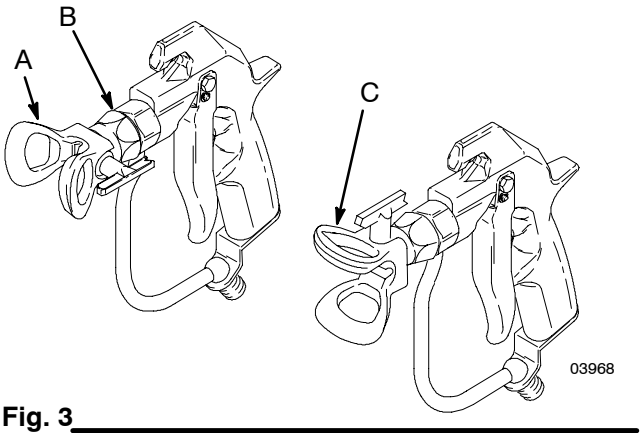


Fig. 3

Installation/Operation

Care of the Spray Tip and Tip Guard

⚠ WARNING

To reduce the risk of fluid injection or splashing in the eyes or on the skin, do not hold a hand, body or rag in front of the spray tip when cleaning or checking a clogged tip. Point the gun toward the ground or into a waste container when checking to see if the spray tip is cleared.

Do not try to “blow back” paint; this is not an air spray gun.

Do not wipe fluid buildup off the gun or spray tip until pressure is relieved.

Cleaning during the day

⚠ WARNING

SKIN INJECTION HAZARD

To reduce the risk of serious injury, whenever you are instructed to relieve pressure, follow the **Pressure Relief Procedure** on page 5.

1. Relieve pressure.
2. Clean the front of the tip frequently during the day to help reduce buildup. Also clean the tip and tip guard at the end of each work day. Use a solvent-soaked brush to clean the spray tip.

If the spray tip clogs while spraying

1. Stop spraying immediately.
2. Lock the gun trigger safety. Rotate the RAC IV tip handle back 180°. See Fig. 4.
3. Unlock the gun trigger safety. Trigger the gun into a pail or onto the ground to remove the clog.
4. Lock the gun trigger safety. Rotate the tip handle to the spraying position. See Fig. 4.
5. If the tip is still clogged, engage the gun trigger safety, shut off the sprayer and disconnect the power source, and open the pressure drain valve to relieve pressure. Clean the spray tip as shown in manual 308644, supplied with the RAC IV.

⚠ CAUTION

Never soak the entire gun in solvent. Prolonged exposure to solvent can ruin the packings.

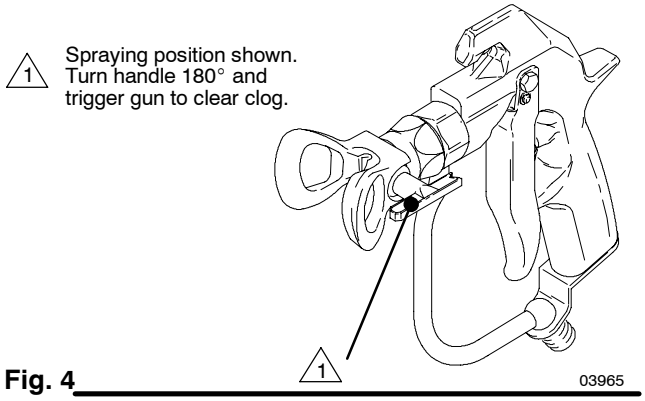


Fig. 4

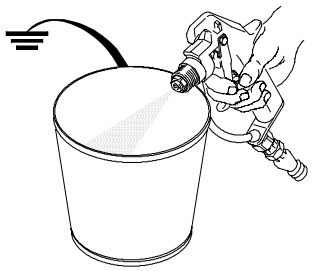
Installation/Operation

How to Flush the Gun

⚠ WARNING

To reduce the risk of serious injury, including splashing fluid in the eyes or on the skin, or static electric discharge when flushing:

- Be sure the entire system, including flushing pails, are properly grounded.
- Remove the tip guard and spray tip.
- Maintain metal to metal contact between the gun and the flushing pail.
- Use the lowest possible pressure.



04735

Always flush the pump and gun before the fluid being sprayed can dry in it.

NOTE: This procedure requires a grounded pail of compatible solvent.

1. Relieve pressure.
2. Remove the tip guard and spray tip. Soak and clean the parts.
3. Remove the pump intake from the original pail.
4. Put the pump intake in a grounded pail of compatible solvent.
5. Start the pump at its lowest pressure.
6. Trigger the gun into the original pail. When solvent appears, release the trigger.
7. Now trigger the gun into the solvent pail. Circulate the fluid until the system is thoroughly flushed.
8. Relieve pressure.

Installation/Operation

How to Check the Gun Diffuser Operation

The Standard Needle and Seat Kit, 237398, has the number **090** stamped on the needle and seat. The seat **does** have a diffuser.

The optional Non-diffused Needle and Seat Kit, 237260, has the number **125** stamped on the needle and seat. The seat **does not** have a diffuser.

⚠ WARNING

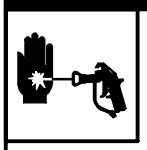
The diffuser, located in the valve seat, creates an irregular spray pattern when the gun is sprayed without a tip guard, such as during cleaning. This reduces the risk of an injection injury.

If you are using the optional Kit 237260, you must take extra precautions to keep your hands and body away from the nozzle of the gun.

Always have the tip guard in place during regular spraying operations.

Check the diffuser operation weekly. The gun diffuser/seat (2a) breaks up spray and reduces the risk of fluid injection when the tip is not installed. Perform the test below. If it fails, replace the entire Needle and Seat Kit. Diffuser/seats and needles are not sold separately; using old parts with new ones will result in leakage.

⚠ WARNING



SKIN INJECTION HAZARD

To reduce the risk of serious injury, whenever you are instructed to relieve pressure, follow the **Pressure Relief Procedure** on page 5.

1. Relieve pressure.
2. Remove the tip guard and spray tip.
3. Start the sprayer and adjust it to the lowest pressure.
4. Aim the gun into a grounded metal pail while holding it firmly to the pail. Trigger the gun. If the fluid emitted **is not** diffused into an irregular stream, replace the entire needle kit immediately. See Fig. 5.

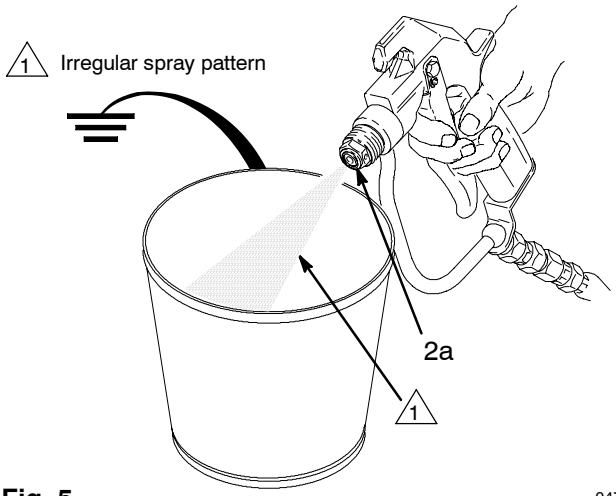


Fig. 5 04735

Service

⚠ WARNING

To reduce the risk of serious injury from fluid injection or splashing, always follow the **Pressure Relief Procedure** on page 5 before servicing the gun.

Repair Notes

The needle and seat are available only as a kit which includes items 2a to 2e.

The Standard Needle and Seat Kit, 237398, has the number **090** stamped on the needle and seat.

A Non-diffused Needle and Seat Kit, 237260, has the number **125** stamped on the needle and seat. It is recommended only for use with mastics, sealers and other high viscosity materials which have fillers that cannot pass through the standard seat's diffuser.

Use high quality, general purpose grease where grease is indicated.

Disassembly

NOTE: If replacing only the needle and seat, Step 4 and 5 are not required. However, removing them allows you to clean the gun more thoroughly.

1. Relieve pressure.

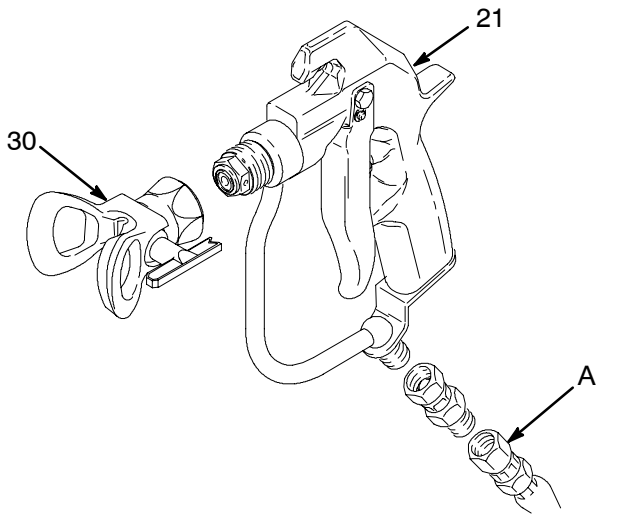


Fig. 6 04731

2. Disconnect the fluid hose (A). Remove the tip guard (30). Unscrew the spring screw (21) about 1/4 in. (7 mm) to release spring tension. See Fig. 6.

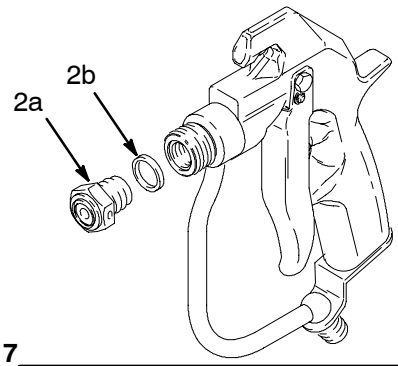


Fig. 7 03969

3. Unscrew the valve seat (2a). Remove the gasket (2b). See Fig. 7.

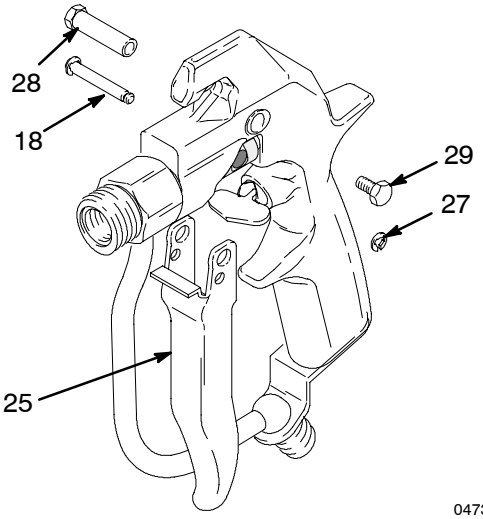


Fig. 8 04732

4. Remove one e-clip (27). Push out the pin (18). Remove the screw (29), pivot pin (28), and trigger (25). See Fig. 8.

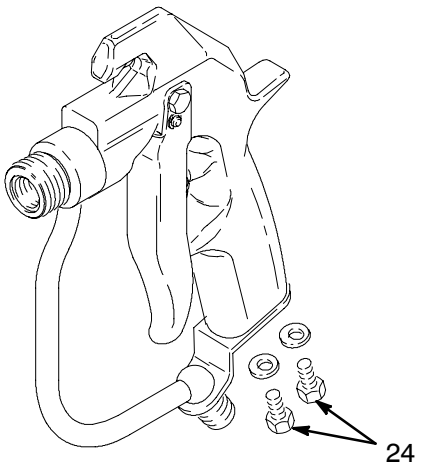


Fig. 9 04733

5. Remove the screws (24). See Fig. 9.

Service

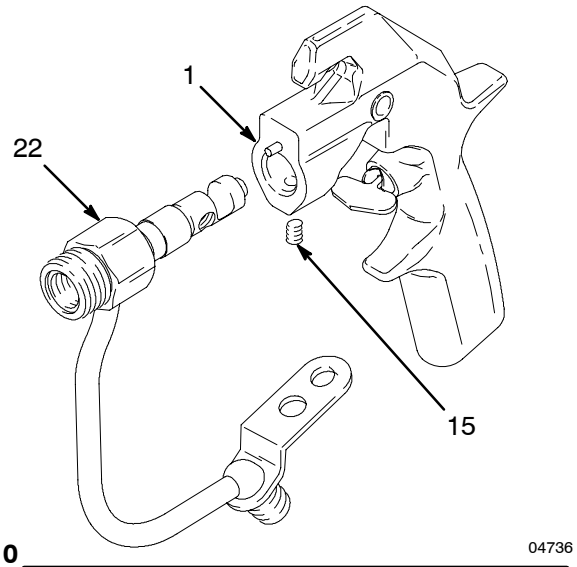


Fig. 10 04736

6. Loosen the setscrew (15). Pull the fluid housing (22) away from the gun body (1). See Fig. 10.

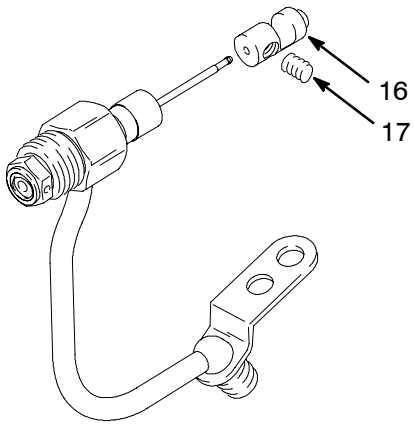


Fig. 11 04734

7. While supporting the spring guide (16) to prevent bending the needle, loosen the setscrews (17). Remove the spring guide (16). See Fig. 11.

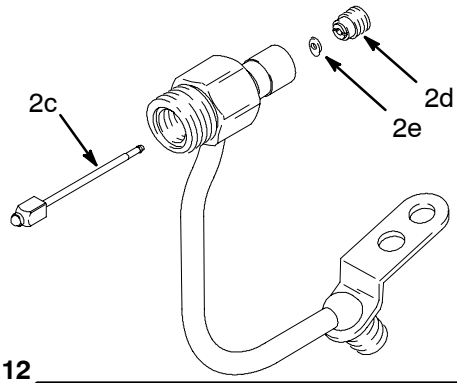


Fig. 12 03974

8. Remove the needle (2c). Unscrew the seal retainer (2d). Remove the seal (2e). See Fig. 12.

Cleaning

Clean all parts and cavities thoroughly with a compatible solvent. Dry with a rag or compressed air. Replace any parts that are worn or damage.

Reassembly

1 Torque to 30–40 in-lb (3.4–4.5 N.m)
2 Lips of seal must face into housing
3 Grease inner cavity of housing

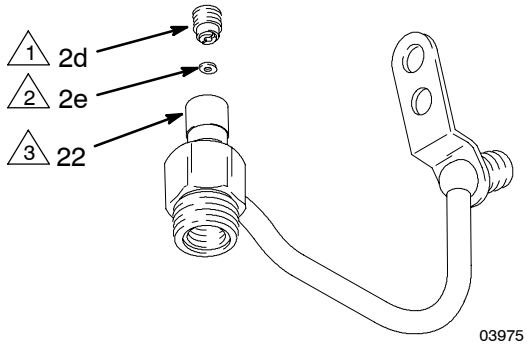


Fig. 13 03975

1. Lightly grease the inner cavities of the fluid housing (22). Install the small seal (2e) so the lips face into the fluid housing cavity. Install the seal retainer (2d) and torque to 30–40 in-lb (3.4–4.5 N.m). See Fig. 13.

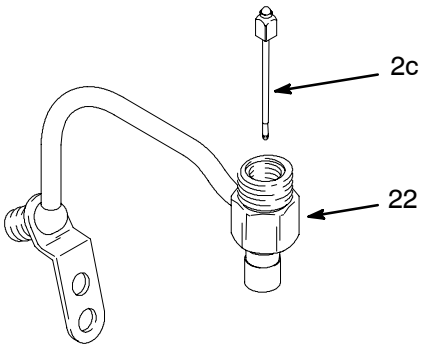


Fig. 14 03676

2. Lightly grease the small end of the needle (2c) and then guide it into the large end of the fluid housing (22).

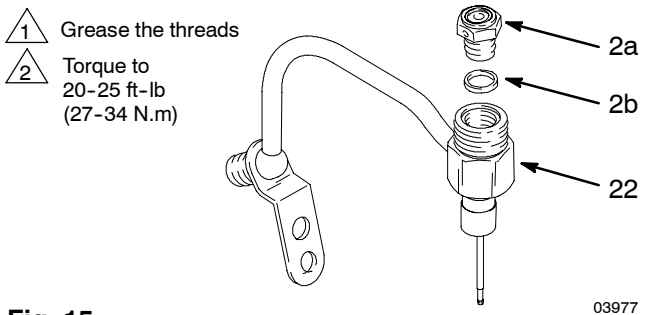


Fig. 15 03977

3. Place the gasket (2b) on the valve seat (2a). Grease the threads of the valve seat (2a). Screw the valve seat into the fluid housing (22). Torque to 20–25 ft-lb (27–34 N.m). See Fig. 15.

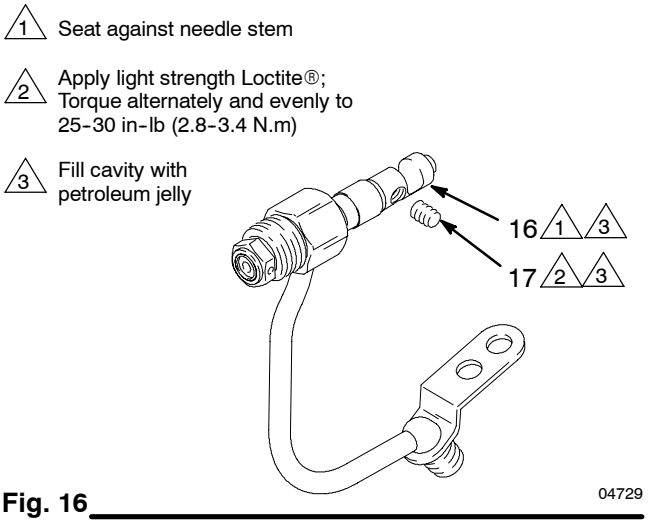


Fig. 16 04729

4. Install the spring guide (16) and seat it against the needle. Loosely thread both setscrews (17) into the spring guide, then alternately and evenly tighten the setscrews to 10–15 in-lb (1.1–1.6 N.m). Fill the setscrew cavities with petroleum jelly.

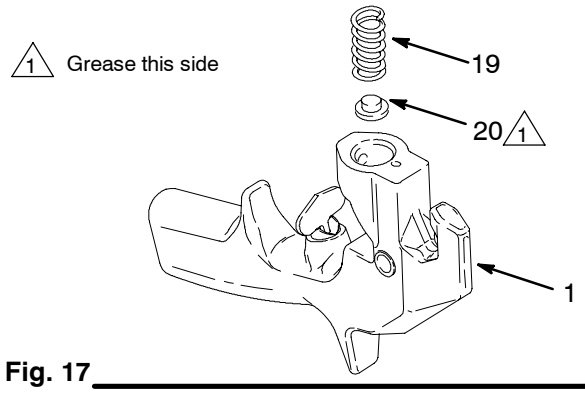


Fig. 17 03979

5. If the spring (19) was removed, grease the spring adjuster (20) and place the spring. Drop this assembly into the gun body (1). See Fig. 17.

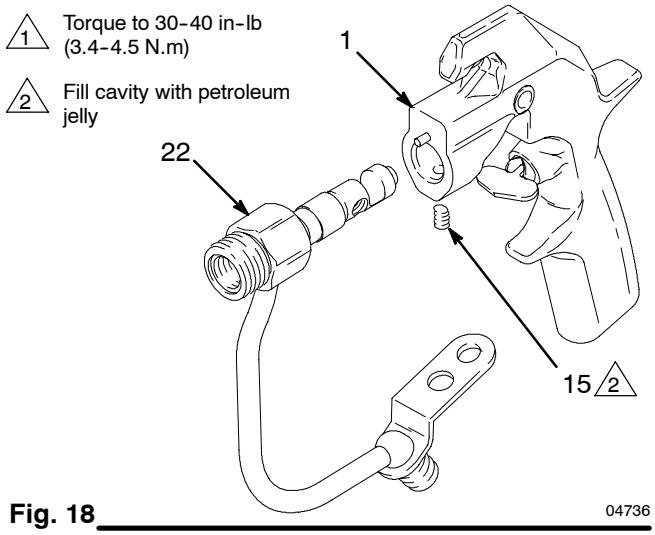


Fig. 18 04736

6. Push the fluid housing (22) onto the gun body (1) until fully seated. Tighten the setscrew (15) to 30–40 in-lb (3.4–4.5 N.m). Fill the setscrew cavity with petroleum jelly. See Fig. 18.

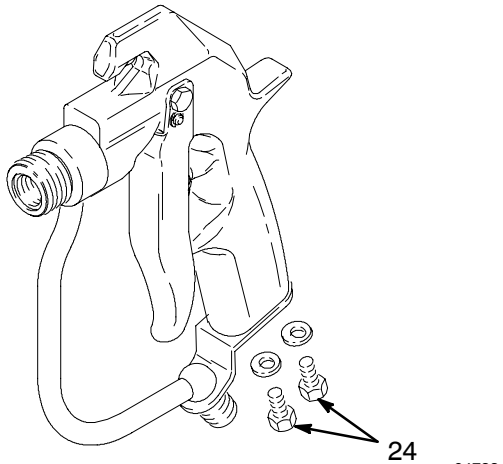


Fig. 19 04733

7. Install the screws (24). See Fig. 19.

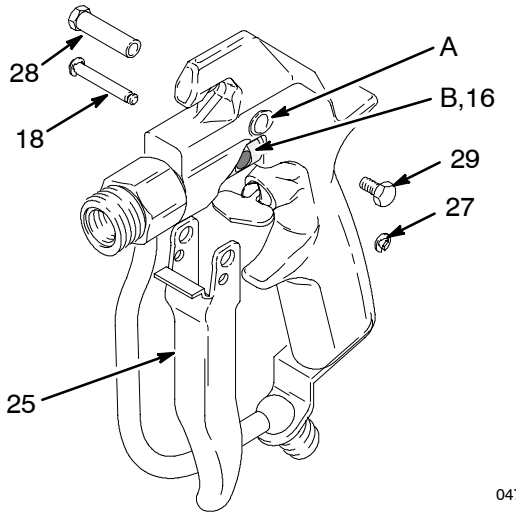


Fig. 20

8. Position the trigger (25) on the gun body. Insert the pivot pin (28) into the top hole (A) and secure with the screw (29) on the other side. Place an e-clip (27) on one end of the trigger pin (18). Slide the pin through lower trigger holes and through the slot (B) in the spring guide (16) (turn the spring guide to align, as needed). Install the other e-clip (27). See Fig. 20.

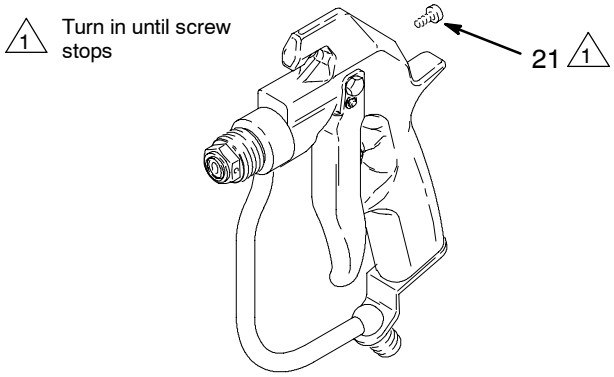


Fig. 21

9. If it was removed, install the spring tension screw (21) at the rear of the gun. Then, turn the screw in until it stops. See Fig. 21.

Test the Gun Before Regular Use

1. Lock the gun trigger safety. Connect a hose to the gun. Start and prime the pump.

2. Release the gun trigger safety. Trigger the gun into a waste container. Release the trigger to be sure the gun immediately stops spraying and that there are no leaks.

3. If the gun has a diffuser, check the diffuser using the procedure on page 9.

4. **Install the tip guard (30) before regular use.** See Fig. 22.

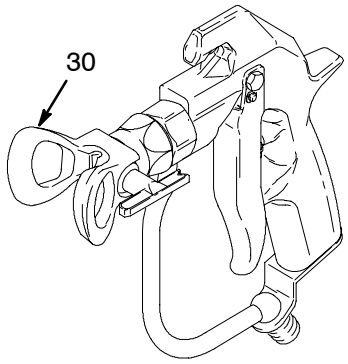
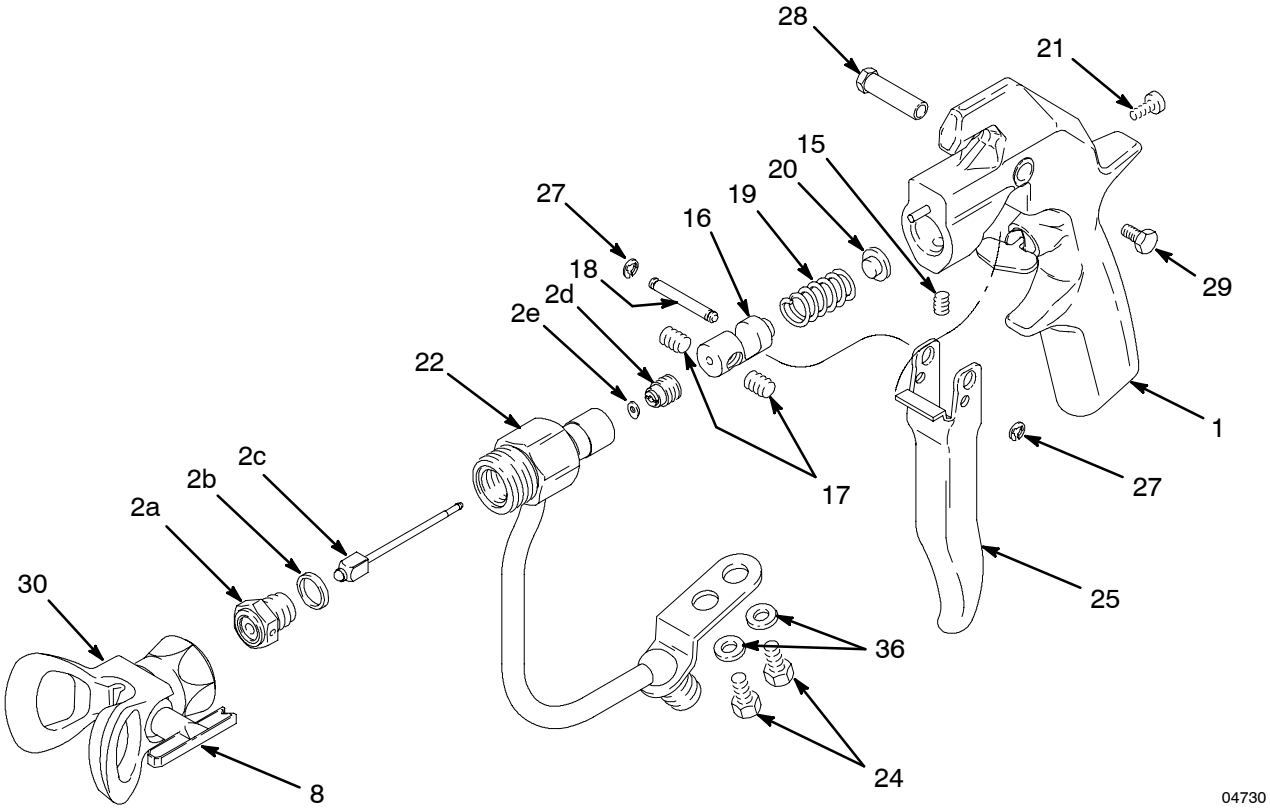


Fig. 22

Parts

Part No. 241705, Series B
Texture Airless Spray Gun



Ref. No.	Part No.	Description	Qty.
1	237680	TEXTURE GUN BODY	1
2	237260	NEEDLE AND SEAT KIT	
		(parts not sold separately)	1
2a		VALVE SEAT	1
2b		GASKET	1
2c		NEEDLE	1
2d		SEAL RETAINER	1
2e		SEAL	1
8	LTX531	SwitchTip, size 531 (Model 241705)	1
	HDA531	Switch Tip, size 531 (Model 289605)	1
15	102207	SETSCREW, 1/4-20	1
16	189960	SPRING GUIDE	1
17	112729	SETSCREW, soc hd	2
18	189958	TRIGGER PIN	1
19	102924	SPRING	1
20	189990	SPRING ADJUSTER	1
21	110637	ADJUSTING SCREW	1
22	237694	FLUID HOUSING	1
24	112774	SCREW, 1/4-20	2
25	189974	GUN TRIGGER	1
27	112410	E-CLIP	2
28	187965	PIVOT PIN	1
29	203953	SCREW, hex washer hd, 10-24	1
30	246215	KIT, TIP GUARD	1
34▲	187346	WARNING SHEET *not shown*	1
35▲	222385	WARNING CARD *not shown*	1
36	110755	WASHER, flat	2

▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

Technical Data

Fluid orifice size	0.125 in. (3.2 mm)
Inlet size	1/4 npt (m)
Fluid tube inside diameter	0.245 in. (6.2 mm)
Sound Data:	
Sound Pressure Level	84 dB(A)*
Sound Power Level	93 dB(A)*
*Measured while spraying waterbase paint through a .031 tip at 3,000 psi (207 bar, 20.7 MPa). Per ISO 3744.	
Wetted parts	Tungsten carbide, 17–4PH passivated stainless steel, polypropylene, polyethylene

Loctite® is a registered trademark of the Loctite Corporation.

Dimensions

Maximum working pressure	27.6 MPa (276 bar, 4000 psi)
Weight *includes tip and tip guard*	25.7 oz (720 g)
Length	8.25 in. (210 mm)
Height	8.0 in. (203 mm)

Graco Phone Number

TO PLACE AN ORDER, contact your Graco distributor, or call this number to identify the distributor closest to you: **1-800-690-2894 Toll Free.**

The Graco Warranty and Disclaimers

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

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Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

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ADDITIONAL WARRANTY COVERAGE

Graco does provide extended warranty and wear warranty for products described in the "Graco Contractor Equipment Warranty Program".

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Graco reserves the right to make changes at any time without notice.

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Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

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